Meeting Summary
Seismic Safety Committee (SSC)

May 29, 2002

Summary

- Subcommittees reported draft recommendations to the 1991 *Policy Plan for Improving Earthquake Safety in Washington.*
- SCC Annual *Report*. There was some overlap in the action items.
- The process to find a funding mechanism for ANSS will begin with the update to the Policy Plan.
- The next meeting will be held July 2002.

Agenda

The purpose of this meeting was to review SSC subcommittee draft recommendations for the EMC *Annual Report*, which will provide an update to the 1991 *Policy Plan for Improving Earthquake Safety in Washington.*

Ron Teissere (Vice Chair) led the meeting. The previous meeting summary (April 22, 2002) was approved with a minor correction: the word "IBC" on Page 5, 3rd paragraph, should read "UBC."

Subcommittee Reports

Subcommittee reports are attached to this summary. Those reports give specific **action items** for the general recommendations summarized here.

Lifelines

Craig Weaver reported on the recommendations. Lifelines are divided into two broad categories**:** **transportation** lifelines and **utility** lifelines. The subcommittee's recommendations focus on strengthening transportation lifelines for the highway, ferry and airport systems. Railroads were excluded because the state has no control over them.

They recommend the following:

TRANSPORTATION

1. **Clearinghouse** and **Registry of Professional/Technical Experts**. Often, critical people can't get what they need after an earthquake. To address this need, the state would create a clearinghouse and pool of qualified technical professionals capable of examining critical pieces of infrastructure.

2. **Training Workshops**. State and local highway system operations need better coordination. Training, delivered through a series of workshops on key topics would improve state and local coordination.

3. **Accelerated Seismic Retrofit Program**. Currently, there is inadequate funding for this big-ticket item. The recommendation is to complete the program in 10 years.

4. **Research into Cost-effective Mitigation for Highway Structure Touchdowns**. Where highway structures touch the ground are vulnerability points. California has funded most of the research for this. However, Washington has a higher importance attached to this technical area because we have more highway structure touchdowns on highly liquefiable ground.

5. **Core Transportation Lifeline System**. The state needs to identify, establish performance criteria for, and build a core transportation lifeline system. A major hurdle will be to define the term "lifeline" to the satisfaction of all groups that respond to emergencies.

UTILITIES

The subcommittee defines utility lifelines as power, water and wastewater, telecommunication, gas and liquid fuels, marine ports and railroads.

1. **Lifeline Performance Objectives**. A series of workshops to develop and adopt performance objectives. The workshops would focus on design standards for new facilities.

2. **Emergency Response and Recovery Plans**. These would be like the SEMS plans the California requires for public and private sector utility lifelines.

3. **Vulnerability Assessments**. People need to know how the system is expected to perform. This recommendation also includes mitigation plans.

4. **Establish a Long-term SSC Structure**

5. **Policy for Lifeline Owner/Operator Essential Personnel Access.** This would be a statewide policy for post-earthquake access to lifeline facilities.

Discussion:

- State needs to consider security issues and work others involved in conducting some of the workshops suggested.

- These recommendations, as all from the SSC, are for state consideration not federal government.
- There could be a potential conflict with the new state law on security when it comes to sharing information on system vulnerabilities.

Information and Technology /Communications

Tony Qamar reported the subcommittee recommendations:

TECHNOLOGY

1. **Strong Motion Monitoring Network**. The UW existing program should be supported by increased resources through legislative action. New seismographs tell a lot about the levels of ground shaking. These instruments can give information about variations in shaking across varied geologic conditions. Most support has come from the federal government.

2. **Seismic Detectors on Structures**. It's important to learn how buildings respond to earthquakes. Structural engineers feel that field monitoring information is critical. The interest is there post 9/11, so perhaps work on terror response can feed into this recommendation.

INFORMATION

1. **Information Products and Training**. State needs to improve both the **response planning** and **post-earthquake** information products. Current earthquake hazard information products and training for response planners should be expanded. And the delivery of information products like the SHAKEMAP, which is a contour map of the level of shaking, need to be streamlined.

2. **Subsurface Geology Database**. We need to know more about geology at the state level. Can the state help collate existing information for public purposes? This would be low cost.

3. **ATC-54 Guidelines**. The Applied Technology Council (ATC) has formal guidelines for Using Strong Motion Data for post-earthquake evaluations. The state might want to adopt these.

4. **Clearinghouse**. This is another vote for the state-based earthquake information clearinghouse recommended by the Lifelines subcommittee. The clearinghouse would offer pre- and post-earthquake information.

COMMUNICATIONS

1. **State Emergency Alert System**. Response is communication. The state should require emergency management offices to fully meet the standards of the federal Emergency Alert System (EAS). Local responders need better preparedness communications equipment and training. NOAA has systems in place that can be expanded upon to improve local alertness capabilities. And NOAA's Emergency Managers Weather Information Network (EMWIN) offers a suite of methods to live stream critical information.

2. **Communications Scenarios Evaluation**. These would look at how voice, email, and Web earthquake data products can be delivered more rapidly and reliably during an earthquake.

Emergency Management

Karin Frinell-Hanrahan reported for this subcommittee.

1. **Review of Emergency Communication Systems.** A critical issue here is statewide radio interoperability. Response communication and statewide radio operations were a problem after the Nisqually earthquake. Currently, few radio stations work all the time. Operability is too short-lived. More funding of the EAS at the local level is needed.

2. **Local Programs for Volunteers**. This would be state oversight of local programs for recruiting, registering, training, certifying and managing volunteers. Should there be a place for global registration of emergency management workers capable of any kind of response? Training methods need to reach all parts of the state. Web-based and CD-rom options need to be considered.

3. **Public Education on Disaster Hazards**. The state's program is good. But what about increasing the number of courses and outreach methods? The emergency management community is being pulled to terrorism, a focus that will continue. Seismic safety will fall by the wayside without state funding.

4. **EMD-sponsored Exercises**. These would be an increased number drills and exercises to validate emergency operations.

5. **Partnerships with Business**. These would be programs to develop partnerships with business to facilitate continuity of business operations.

Discussion:

- Major earthquakes haven't caused a significant numbers of deaths for a long time. Can we team up with terrorism work?

Structures

Ken Korshaven reported for the Structures subcommittee.

1. **School Facilities**. This is a critical gap in the subcommittee's work. Nothing recommended in the previous plans has been carried over. The representative for schools left the subcommittee and they have been unable to find a replacement.

2. **State Building Codes**. Two recommendations are offered. First, is that the state use the International Existing Buildings Code (IEBC) to establish thresholds to upgrade seismic safety in existing buildings. The second is that the state adopt the International Building Code (IBC).

3. **Financial Incentive Programs**. The subcommittee hasn't finished with this. They have two possible recommendations. One is to develop an insurance pool within the state. The other is to encourage the federal government to keep exploring a "flood-insurance-type" program for earthquakes.

ANSS Support

Ron Teissere updated the SSC on the current political support for the Advanced National Seismic System (ANSS). Support is diffused at this time. The EMC needs a more focused proposal. Funding ANSS through an additional fee to building permits is not possible for the near term. In fact, a process to find a funding mechanism for ANSS may have to start with the policy that comes from the *Annual Report* and *Policy Plan* the SSC is completing. **The Policy Plan is a strategy**.

COT/SSC Status

Ron also updated the SSC on the status of the relationship of the Committee on Terrorism (COT) and the SCC's work. The COT has developed a strategic work plan. Few specifics have been laid out, however. The COT plans to meet with the SSC subcommittees. It's important to note that COT is not hazard planning. What you do to protect a structure differs considerably from planning for terrorist attacks.

There is a lot of federal funding. Ron asked the SSC to consider how their recommendations can relate to security. Some money is being returned to the Homeland Security.

Next Step

The next meeting will be held July 2002. The final plan will go to the EMC in September for submittal to next year's legislative session.

Meeting Participants:

Mr. Ron Teiserre, Vice Chair, DNR
Ms. Sophia Byrd, Washington State Association of Cities
Mr. George Crawford, EMD
Dr. Terry Egan, EMD
Ms. Karin Frinell-Hanrahan, Grays Harbor County DEM
Mr. Ken Korshaven, City of Lynnwood
Mr. Dave Nelson, EMD
Ms. Dianna Staley, EMD
Mr. Tim Nogler, State Building Code Council
Ms. Joan Scofield, Office of the Insurance Commissioner
Mr. Terry Simmonds, WSDOT
Mr. Bill Steele, UW
Dr. Tony Qamar, UW
Mr. Tim Walsh, DNR
Dr. Craig Weaver, USGS
Mr. Greg Varney, Structural Engineers Association of Washington
Dr. Hal Mofjeld, NOAA/PMEL
Lt. Kevin Zeller, Washington State Patrol
Mr. Mark Stewart, EMD
Ms. Sidse Nielsen, EMD
Ms. Eva Weaver, Weaver Associates